

EWIS Overview:

Using Early Warning Data to Improve
Student Outcomes

Kate Sandel

MASSACHUSETTS DEPARTMENT OF
ELEMENTARY AND SECONDARY
EDUCATION



What are Early Warning Data?

- ★ This is a general term that refers to data used to predict, diagnose, and monitor students' risk of missing academic milestones
- ★ Tool for educators to better design and target student interventions in a timely way
- ★ Massachusetts developed Early Warning Indicator System (EWIS) which looks across K-12 and postsecondary
 - ★ It includes the student risk levels found in the EWIS reports
 - ★ It may also include local data sources such as diagnostic data and monitoring indicators

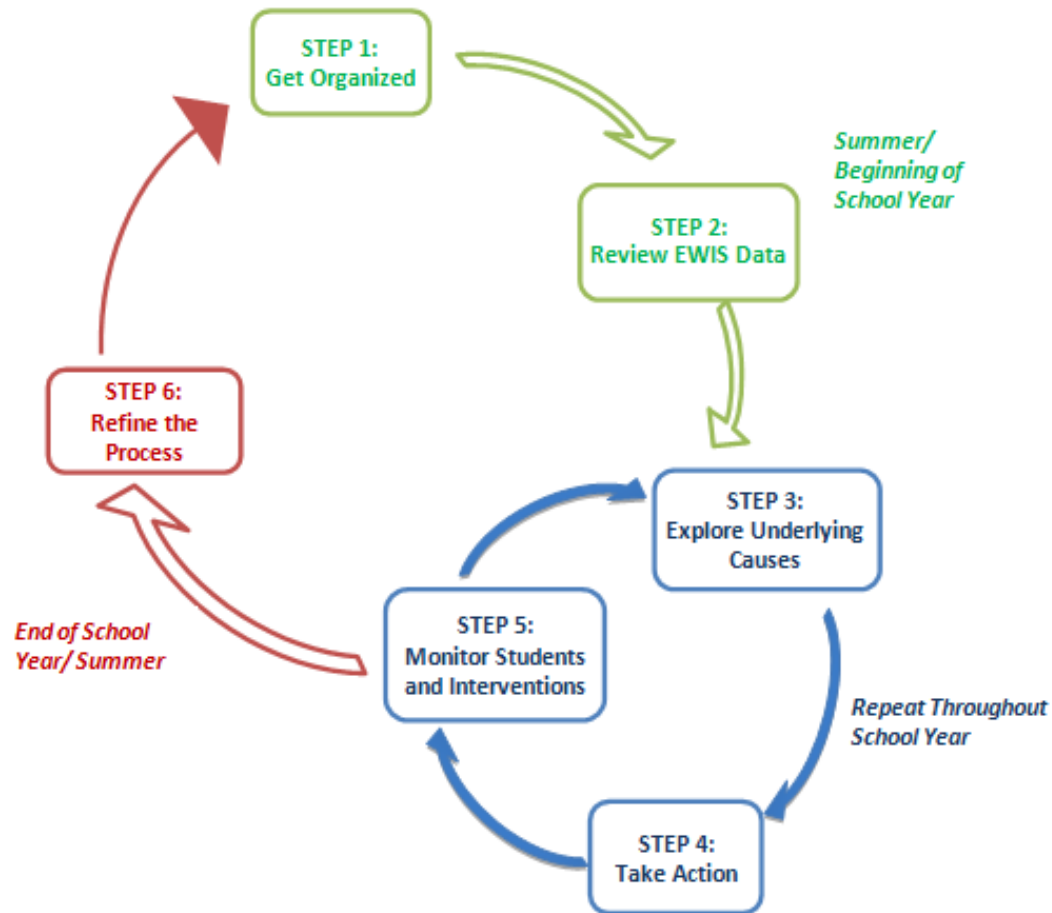


What is the EWIS?

- ★ Massachusetts Early Warning Indicator System (EWIS)
- ★ It identifies students in grades 1-12 at risk of missing key academic milestones (*without intervention*)
- ★ Provides student risk levels at the *beginning* of each school year
- ★ Reports are in Edwin Analytics –
 - ★ Five reports for K-12 milestones
 - ★ One new report for postsecondary milestones
- ★ EWIS Implementation a method of using the EWIS data – with other resources – to study students' risk, explore underlying causes, deploy programming and monitor results of interventions



Early Warning Implementation Cycle



EWIS Key Concepts

- ★ A student's Risk Level indicates the likelihood of missing the academic milestone – *without interventions*

High Risk	At Risk for not reaching the upcoming academic milestone ~25% of students at high risk meet the academic milestone
Moderate Risk	Moderately at risk for not reaching the upcoming academic milestone ~60% of students at moderate risk meet the academic milestone
Low Risk	Likely to reach the upcoming academic milestone ~90% of students at low risk meet the academic milestone

- ★ It is based on prior year data, from statewide collections
- ★ Taken together, the data collectively form a risk level
- ★ The risk levels are *not* based on a student's relative likelihood for reaching an academic goal when compared with other students



EWIS Seven Academic Milestones

Model	Grade Level Groupings	Academic Milestones	State Results
K-12 Milestones	Grades 1-3	Reading by the end of third grade Reaching proficiency or higher on 3 rd grade ELA State Assessment	60%
	Grades 4-6	Middle school ready Reaching proficiency or higher on 6 th grade ELA and math State Assessments	55%
	Grades 7-9	High school ready Passing grades on all 9 th grade courses	79%
	Grades 10-12	High school graduation Meeting all local and state graduation requirements	87%
Postsecondary Milestones		College Enrollment Enrolling in postsecondary education	76% of HS grads
		Academic Readiness Enrolling in credit-bearing courses without developmental education	65% of college goers
		College Persistence Persisting in second year of postsecondary education	86% of college goers

Most Simply Put... the A, B, C's matter

★ Attendance

★ Behavior

★ Course Performance

★ EWIS uses available state data sets; School and district teams also have local data available

★ **Monitoring indicators:**

★ Rely on data that are available during the school year

★ Complement the use of EWIS student risk levels, monitoring indicators flag students who are at risk and track student progress at multiple times throughout a single school year

★ **Diagnostic Data:**

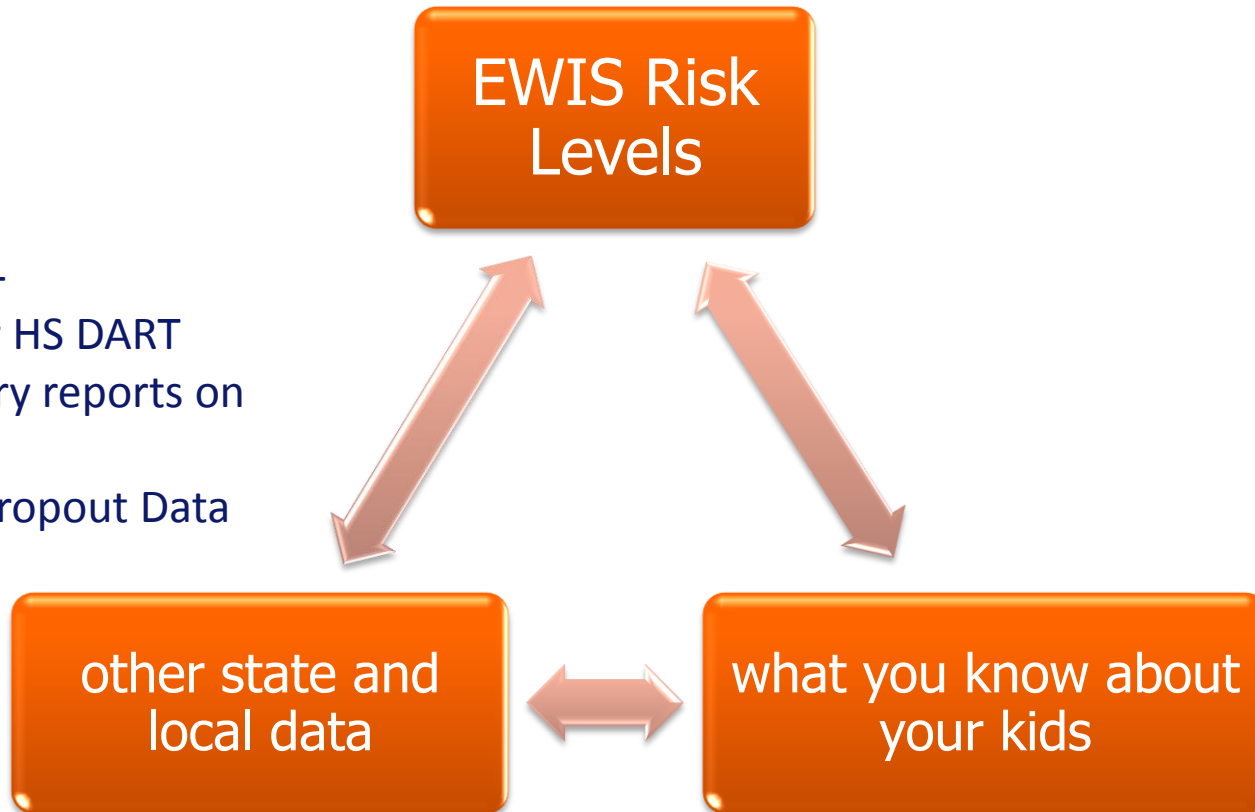
★ Supplemental data sources that can help schools and districts better understand underlying causes of student risk, and track student progress in interventions



EWIS can complement the other data available to educators.

For example –

- Success after HS DART
- Postsecondary reports on EDWIN
- Analysis of Dropout Data



EWIS is ... and is not...

The Massachusetts EWIS <i>is</i> ...	The Massachusetts EWIS is <i>not</i> ...
a method to better target interventions and student supports at the individual, small group, and whole school levels	a label for students (“not college-track”)
a systematic way to identify students for further review to determine if additional supports are necessary	a diagnostic tool with reasons why a student is at risk
related to measures that are included in the state’s accountability system (PPI)	an accountability or college admissions measure
a system that ESE reexamines each year to continually improve	a stagnant system that will remain the same in future years

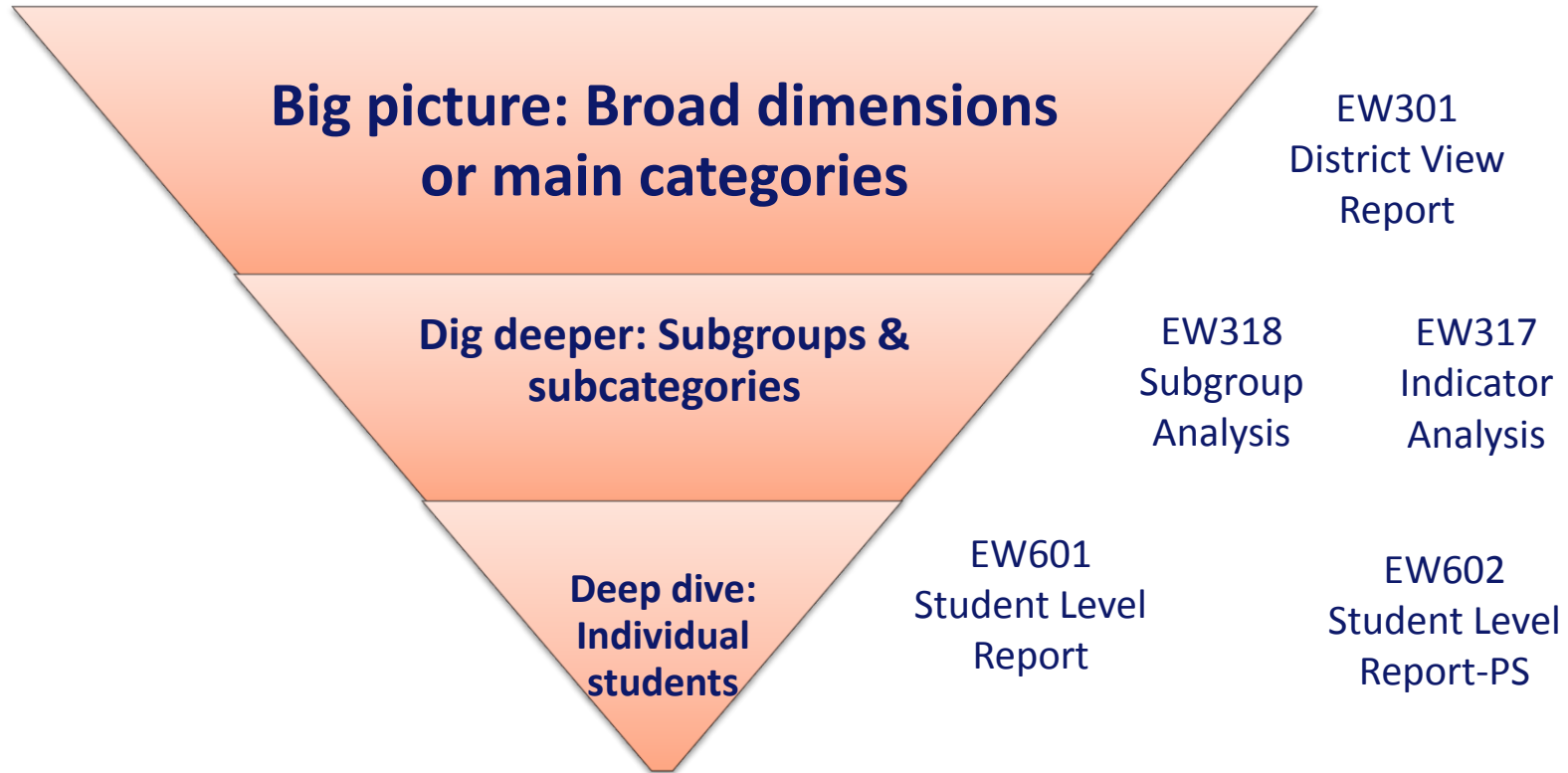


There are 6 EWIS Reports available to school and district staff thru EDWIN

- ★ 5 reports reflect the K-12 Milestones (with Reading 3rd grade thru High School Graduation outcome):
 - ★ EWIS District View
 - ★ EWIS Subgroup Analysis
 - ★ EWIS Risk Level Indicator Analysis
 - ★ EWIS Graphical View
 - ★ EWIS Student List
- ★ 1 report for Postsecondary Milestones
 - ★ EWIS Student List – Postsecondary
 - ★ More reports being developed for Fall 2017
- ★ All reports may be filtered numerous way (e.g., specific schools, grade levels, student subgroups)



One way to think about it...



- *Is there a subgroup that you are most concerned about?*
- *What do you already know about them?*
- *What additional information would you like to know?*



Navigating Edwin

Edwin Analytics

[Home](#)[District & School - Public](#)[District & School - Unsuppressed](#)[Student](#)[ESE](#)[Educator Prep](#)

AssessmentsEarly Warning IndicatorsEducation PersonnelEnrollment & IndicatorsPostsecondary Readiness & SuccessSchool ReadinessFinance



The 'District & School – Public' tab is available to all Edwin Analytics users and contains reports and cubes with public data only.


Early Warning Indicator System (EWIS) District View (EW301)


Early Warning Indicator System (EWIS) Graphical View (EW302)


Early Warning Indicator System (EWIS) Risk Level Indicator Analysis (EW317)

Early Warning Indicators

Aggregate and student level reports containing information about early warning indicators for K-12 students. Additional information about EWIS is available on the [EWIS public webpage](#). More information about these reports:  .

[Early Warning Indicator System \(EWIS\) District View \(EW301\)](#)  [Learn More](#)
Provides State- or District-level Early Warning Indicator System (EWIS) risk levels of students by grade and school.

[Early Warning Indicator System \(EWIS\) Graphical View \(EW302\)](#)  [Learn More](#)
Provides graphical representation of the Early Warning Indicator System (EWIS) risk levels of students compared to the district and state for the current school year as well as 5-year risk level trends of current students and the demographics/special population profile of the current students.

[Early Warning Indicator System \(EWIS\) Risk Level Indicator Analysis \(EW317\)](#)  [Learn More](#)
A tool to analyze specific attendance, behaviors, and course Early Warning Indicator System (EWIS) indicators for students in each risk level for a selected grade.



EWIS Report – Prompt page



EWIS Subgroup Analysis Prompt Page

Contact us

* Required Field

Select District/Schools

School Year
* 2015-16 ▼

District
* Please select a district ▼

Schools

Grade Level

☐ 01
☐ 02
☐ 03
☐ 04
☐ 05
☐ 06
☐ 07

[Select all](#) [Deselect all](#)

Select Student Groups

Race/Ethnicity

- ☐ African American/Black
- ☐ Asian
- ☐ Hispanic or Latino
- ☐ Multi-race, non-Hispanic or Latino
- ☐ American Indian or Alaskan Native
- ☐ Native Hawaiian or Pacific Islander
- ☐ White

[Select all](#) [Deselect all](#)

Gender

High Needs

Economically Disadvantaged

ELL

FELL

SWD (6-21)

Select Report Results

Include State Report

☒ Yes
☐ No

Submit

Cancel

Reset

The District View Report is a good place to begin your EWIS Review

- ★ The District View is helpful for district-wide initiatives and to prioritize support
- ★ Consider these questions:
 - ★ Where can the district channel additional resources to get students back on track for meeting the next academic goal?
 - ★ Where should the district prioritize?
 - ★ Which grade levels or schools have the most students needing targeted support?
 - ★ What is the breakdown of risk levels in subgroups, for example among students with disabilities and Hispanic/Latino students?



EW301 Early Warning Indicator System (EWIS) District View

EWIS as of Dec-2014 for the 2014-2015 School Year for students currently enrolled in the 2015-2016 School Year

School(s): All Schools within District

Grade Level: 07, 08, 09

	Total Enrollment	High		Moderate		Low		N/A	
	#	#	%	#	%	#	%	#	%
Total for Report	1,371	324	23.6	415	30.3	577	42.1	55	4.0
School: Beebe	185	34	18.4	57	30.8	89	48.1	5	2.7
Grade 07	90	19	21.1	35	38.9	32	35.6	4	4.4
Grade 08	95	15	15.8	22	23.2	57	60.0	1	1.1
School: Ferryway	185	51	27.6	64	34.6	66	35.7	4	2.2
Grade 07	100	44	44.0	33	33.0	21	21.0	2	2.0
Grade 08	85	7	8.2	31	36.5	45	52.9	2	2.4
School: Forestdale	108	27	25.0	41	38.0	37	34.3	3	2.8
Grade 07	58	21	36.2	25	43.1	9	15.5	3	5.2
Grade 08	50	6	12.0	16	32.0	28	56.0	0	0.0
School: Linden	176	47	26.7	54	30.7	73	41.5	2	1.1
Grade 07	87	30	34.5	28	32.2	27	31.0	2	2.3
Grade 08	89	17	19.1	26	29.2	46	51.7	0	0.0
School: Malden High	486	85	17.5	140	28.8	236	48.6	25	5.1
Grade 09	486	85	17.5	140	28.8	236	48.6	25	5.1
School: Salemwood	231	80	34.6	59	25.5	76	32.9	16	6.9
Grade 07	119	49	41.2	31	26.1	30	25.2	9	7.6
Grade 08	112	31	27.7	28	25.0	46	41.1	7	6.2



The Subgroup Analysis Report supports district/school subgroup comparisons

- ★ The Subgroup Analysis is helpful to bring a subgroup analysis to the school level
- ★ Consider these questions:
 - ★ How do Risk Levels within a school vary across racial/ethnic groups and gender?
 - ★ Is there a noticeable difference in Risk Levels for certain student subgroups (i.e. SWD, ELL, Low Income, etc.)?
 - ★ How do the Risk Levels of student subgroups compare to the state?
 - ★ Are there students populations with similar characteristics and Risk Levels who might benefit from additional services or interventions?



School: All Students within District

Grade Level: 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12

Schools

- ☒ [School Name]
- ☒ [School Name]
- ☒ [School Name]
- ☒ [School Name]

[Select all](#) [Deselect all](#)

Grade Level

- ☒ 01
- ☒ 02
- ☒ 03
- ☒ 04
- ☒ n/a

[Select all](#) [Deselect all](#)

Submit

Data shown for grades: 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12

	Selected Students in I											Selected Students in State									
	Total Students		High		Moderate		Low		N/A			Total Students		High		Moderate		Low		N/A	
	#	%	#	%	#	%	#	%	#	%		#	%	#	%	#	%	#	%		
Total for Selected Students	9,312	4,701	50	2,196	24	2,305	25	110	1		840,626	186,633	22	155,871	19	492,958	59	5,164	1		
African American/Black	696	408	59	145	21	132	19	11	2		71,827	29,181	41	18,250	25	23,729	33	667	1		
Asian	412	206	50	85	21	120	29	1	0		49,468	7,857	16	7,461	15	34,023	69	127	0		
Hispanic or Latino	1,911	1,286	67	363	19	237	12	25	1		139,455	65,471	47	35,154	25	37,761	27	1,069	1		
Multi-race, non-Hispanic or Latino	490	279	57	139	28	69	14	3	1		23,556	5,612	24	5,066	22	12,782	54	96	0		
American Indian or Alaskan Native	26	14	54	5	19	5	19	2	8		1,924	593	31	465	24	849	44	17	1		
Native Hawaiian or Pacific Islander	10	6	60	2	20	2	20	0	0		811	214	26	159	20	430	53	8	1		
White	5,670	2,424	43	1,455	26	1,732	31	59	1		552,294	76,961	14	89,081	16	383,145	69	3,097	1		
Not Available	97	78	80	2	2	8	8	9	9		1,301	744	57	235	18	239	18	83			
Female	4,462	1,859	42	1,224	27	1,348	30	31	1		409,605	73,603	18	70,968	17	263,176	64	1,858	0		
Male	4,753	2,764	58	970	20	949	20	70	1		429,737	112,299	26	84,671	20	229,544	53	3,223	1		
Unknown	97	78	80	2	2	8	8	9	9		1,284	731	57	232	18	238	19	83	6		
High Needs	7,494	4,360	58	1,724	23	1,317	18	93	1		408,547	165,862	41	110,139	27	128,047	31	4,499	1		
Low Income	7,231	4,186	58	1,671	23	1,290	18	84	1		323,194	136,036	42	87,525	27	97,627	30	2,006	1		
ELL	687	568	83	69	10	47	7	3	0		58,423	39,163	67	11,814	20	7,166	12	280	0		
FELL	121	80	66	21	17	20	17	0	0		22,600	7,833	35	5,836	26	8,856	39	75	0		
SWD (6-21)	1,807	1,453	80	197	11	85	5	72	4		144,905	75,781	52	32,173	22	33,428	23	3,523	2		
Ever ELL	1,401	869	62	217	15	303	22	12	1		123,787	56,189	45	26,072	21	40,772	33	754	1		
First Language Not English	1,940	1,151	59	360	19	408	21	21	1		144,684	61,292	42	31,661	22	50,919	35	812	1		
Overage	1,154	938	81	134	12	46	4	36	3		70,833	40,529	58	14,217	20	14,798	21	885			

The Student List shows detail for individual students

- ★ The Student List is helpful for educators to investigate particular students
- ★ Two student lists:
 - ★ K-12 Milestones
 - ★ Postsecondary Milestones
- ★ Consider these questions:
 - ★ What are the current risk levels of my students?
 - ★ What indicators (individual data points) are in the Risk Level calculations?
 - ★ For K-12: What was the prior risk level for my student?
 - ★ For Postsecondary: Are the risk levels different for college enrollment, academic readiness and college persistence?



The Student List – Postsecondary shows detail for individual students [left side]

Risk Levels

Risk of Not Graduating HS	Risk of Not Meeting College Success Outcomes		
	College Enrollment	Academic Readiness	Persistence
High	High	High	High
Low	High	High	High
Moderate	High	High	High



The Student List – Postsecondary shows detail for individual students [right side]



Indicators in model

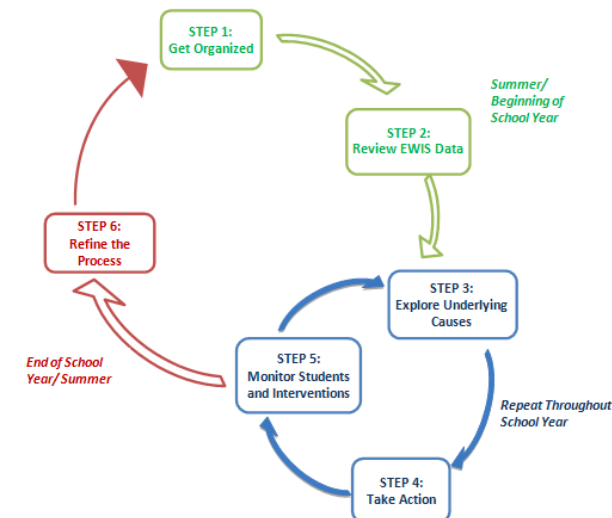
Student info

EWIS Information																			Current Students' Information						
ACCESS for ELLs	Ever ELL	ELA MCAS HS	Math MCAS HS	Sci MCAS HS	Math Course Perf	Math passing	AlgII or Higher	ELA Course Perf	ELA passing	Sci Course Perf	Sci Passing	SS Course Perf	SS Passing	ForLang Course Perf	Pass all courses	Ontrack Masscore	Higher Coursework	AP	SAT	Age	Econ Disadv	Race/Ethnicity	ELL	ELL Program	Special Education Placement
None	No	Alt-Progressing	Alt-Progressing	MCAS-Failing	Pass	B or higher year or more	No	Pass	B or higher year or more	No Course Completed	-	Pass	B or higher year or more	No Course Completed	Pass All	Yes	No	No	NIM	16.5	Y	White	N	N/A	Substantially Separate Classroom special education services outside the general education classroom more than 60% of the time
None	Yes	-	MCAS-Failing	MCAS-Failing	Pass	C or higher year or more	No	Pass	C or higher year or more	Pass	C or higher year or more	Fail	-	No Course Completed	Fail at least one	No	No	No	NIM	17.0	Y	Hispanic or Latino	N	N/A	Not a Special Education Student, age 6-21
2.3	Yes	-	MCAS-Failing	MCAS-Failing	Pass	Pass year or more	No	Pass	C or higher year or more	Pass	Pass year or more	Pass	Pass year or more	No Course Completed	Pass All	No	No	No	NIM	19.0	N	Hispanic or Latino	Y	Enrolled in sheltered English immersion	Not a Special Education Student, age 6-21
None	No	MCAS-Failing	MCAS-Failing	MCAS-Failing	Pass	Pass year or more	No	Pass	Pass year or more	Pass	B or higher year or more	Pass	B or higher year or more	No Course Completed	Pass All	Yes	No	No	NIM	16.2	N	White	N	N/A	Substantially Separate Classroom special education services outside the general education classroom more than 60% of the time

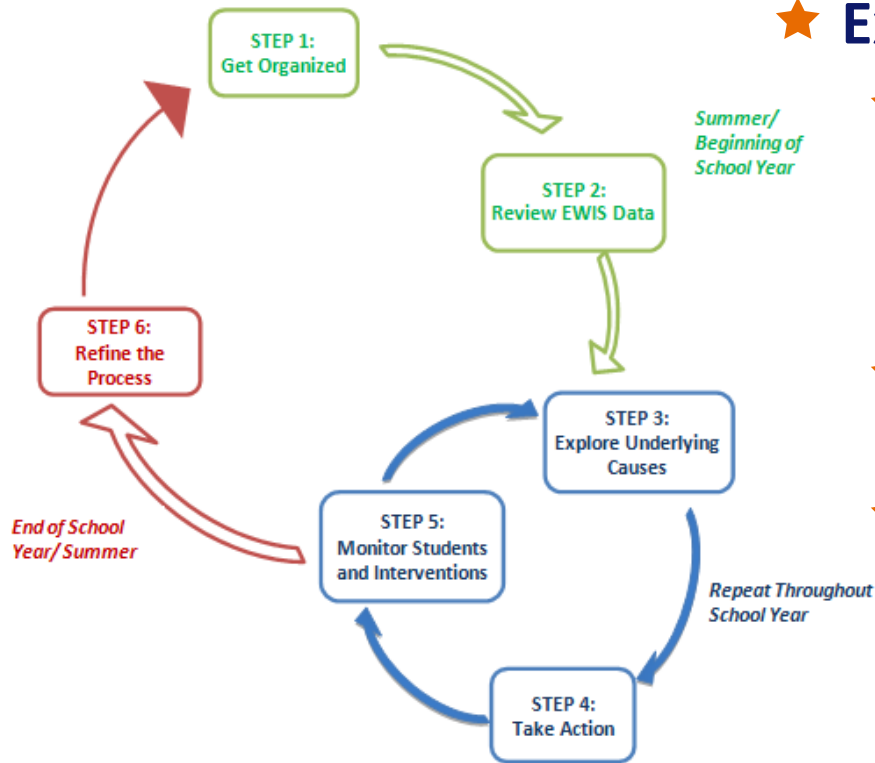


What is Early Warning Implementation?

- ★ A multi-step method of using Early Warning data that districts and schools can follow to effectively:
 - ★ identify at-risk students
 - ★ explore underlying causes for risk
 - ★ provide interventions and supports
 - ★ monitor student progress
 - ★ make school wide and student level improvements
- ★ *This multi-step method is a foundation for implementing tiered systems of support*



Practitioners use EWIS data to understand students' needs and plan responses



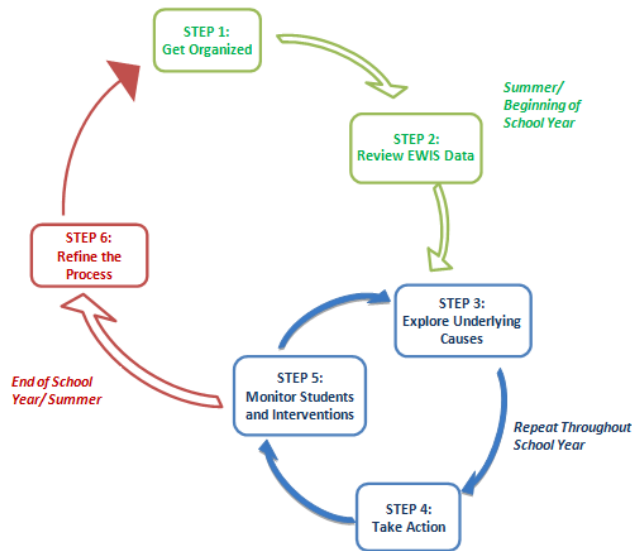
★ Explore underlying causes:

- ★ 'We discovered that the reasons for students risk are far more complex than we realized in the past'
- ★ 'Why are students passing courses but not passing MCAS?'
- ★ 'We're combining EWIS data with data from a survey we administer, to help us better understand our students.'



Practitioners use EWIS data to understand students' needs and plan responses

★ Take action:

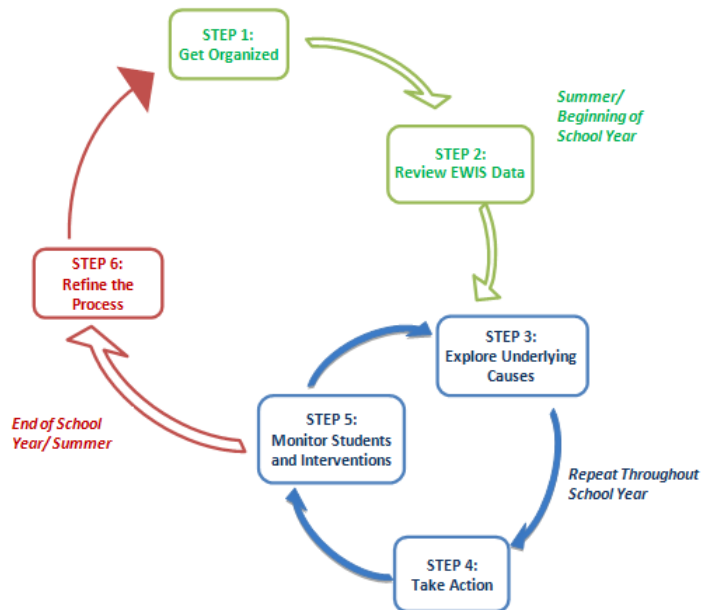


- ★ 'We started out by doing a comprehensive inventory of all the interventions we offered at all grade levels. When we reviewed this list we saw we had virtually nothing for middle school and that our interventions were being thought and about and delivered in silos by ELL, SPD, etc. rather than addressing the broader needs of the students.'
- ★ 'If a student is absent more than twice in the first 20 days, we contact the parent right away where we share the attendance policies and clarify expectations.'



Practitioners use EWIS data to understand students' needs and plan responses

★ Take action:

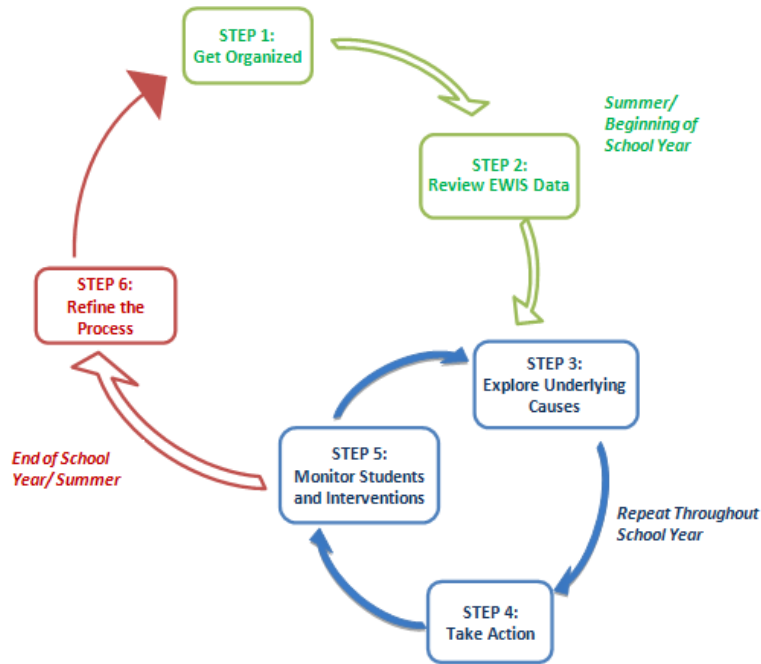


- ★ ‘We make sure that each High Risk student has an adult who’s connecting with them – looking out for them – every day.’
- ★ ‘It’s not always about the student when they are high risk. We used EWIS data to go to some teachers with high failure rates and ask them to tell us what’s happening in the classroom. We were able to suggest shifts in instructional practice, use more formative assessments and embed instructional coaches in classrooms to offer more support for some teachers”

Practitioners use EWIS data to understand students' needs and plan responses

★ Monitor students and interventions:

- ★ 'We are implementing a series of attendance interventions and will see if they work.'
- ★ 'If we see that an intervention isn't having an effect, we try something else.'



ESE Resources

★ EWIS Resources

- ★ EWIS Website www.doe.mass.edu/ccr/ewi has tutorials, an implementation guide and other materials
- ★ Video highlights of Massachusetts schools and districts and their use of EWIS, created by the national Data Quality Campaign <https://www.youtube.com/watch?v=mUVCGZIQbQU>
- ★ Send questions to: EWIS@doe.mass.edu

★ School & District Performance on the academic milestones

- ★ Profile data <http://profiles.doe.mass.edu> has 3rd & 6th grade MCAS and PARCC results
- ★ Success After High School DART has 9th grade course passing high school graduation rate and postsecondary outcomes

<http://www.mass.gov/edu/docs/ease/accountability/dart/dart-success-after-high-school.xlsx>

★ Edwin Resources

- ★ The Edwin website www.doe.mass.edu/Edwin has release updates, professional development opportunities and other materials
- ★ If you need access to Edwin Analytics, contact your district directory administrator:
<http://www.doe.mass.edu/infoservices/data/diradmin/list.aspx>
- ★ See videos about Edwin Reports: <http://www.mass.gov/edu/government/departments-and-boards/ease/programs/digital-learning/data-in-action/edwin-analytics/>
- ★ Follow Edwin on Twitter! @ Edwin_DESE



★ Questions? Comments? Feedback?

Please contact:

EWIS@doe.mass.edu

Kate Sandel ksandel@doe.mass.edu

